Work Orde April-30-13 2:3		101018			*10	1018*	·					Page 1
Item ID: Revision ID:	D3884-2				Accept	*N900	<b>040</b>	100	<b>)*</b> s	etup Sta	1 71	S1*
Item Name:	Saddle, Inl	ooard RH					B.			Sto	<sup>op</sup> *N:	S2*
Start Date:	5/13/13	Start	t <b>Qty:</b> 6.00	*6*		Cust Item I	D:					
Required Date: Reference:	5/17/13	Req'	<b>d Qty:</b> 6.00	*6*		Customer:						
Approvals:	Process	Plan:	MLJ	Date:/3-05-0		Da	ite:		R	tun Sta	171	R1*
	QC:			Date:	<b>SPC (Y/N):</b>	Da	ıte:			Sto	*N	R2*
Sequence ID/ Work Center II	)	Opera Descr	ation iption		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	J	Revision N	lbr									
D3884	E	3	:		. <del></del> .						•	
*100 *100* HAAS I HAAS CNC vertical	machine #1	HAAS	Memo	tch No. <u>/ 0/ 0/ 8</u>	0.00	ork 13/	07/0:	7	6_	<i>B</i>		
			1-Machine Sheets 2-Machine Sheets	Step No 1 per Folio FA819 Step No 2 per Folio FA819 Step No 3 per Folio FA819	9 and inspect per attache	d Dimension					٠.	
*110 *110*		QC2-1	Inspect parts off m	nachine FAI/FAIB	0.00	and 13/07	107		,			
QC			Memo		0.00							

Quality Control

										DQA:	Date:	
NCR: Ye	s / No	•			WORK ORDER NON-	CONI	FORI	MANCE / UP	DATE			
										QA Closed:	Date:	
Work Order:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Order	•	·			Rework	7 <b> </b>		Skid-tube	Crosstube		Water Jet	Engineering
Part No	<b>)</b> .				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	] [	Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR No	o				Work Order Update	]		Large Fab	Composite		Supplier	
Root	1	Ĭ	1	Doscri	ption of work order update	Ini	itial	Ι	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	1	ef Eng	I .	ription	Date	Verification	QC Inspector
Doc/Data	Date	Step	City	<u>'</u>	or Non-comormance	Cine	LIIE	Desc	прион	Date	Vermeation	QC III3pector
Equip/Tooling	-	ŀ										
Operator	-					1.						
Material	-	-										
Setup												
Other												
Process				•		İ						
Supplier												
Training		1										
Unapproved			<u> </u>					<u> </u>				
						FAULT	CATE	GORY				
Landing	g Gear			_	General				_	1		1
1 1	Rendin	or .		1	Bend	1 10	irain			Ovalized		Pressure/Forced

Cracks Broken/Damaged Inspection Incomplete Part Incorrect Weld Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Mislabeled Positioned Wrong Heat Treat Countersink Other Misread Power Loss/Surge Inspection Strip in Tube Cut Too Short Offset Ripples in Bend Drill Holes Torque Waves in Extrusion Drawing Out of Calibration Out of Sequence Turning Sequence Finish Wave/Twist in Tube Folio Outside Dimensions

Hardware

Over/Under tolerance

Temperature/Cure

BOM/Route

Centre Not Concentric to O/S

Work Order ID 101018 \*101018\* Page 2 April-30-13 2:38:23 PM Item ID: D3884-2 Accept \*N900040100\* Setup Start **Revision ID: Item Name:** Saddle, Inboard RH **Start Date:** 5/13/13 Start Qty: 6.00 **Cust Item ID: Req'd Qty:** 6.00 Required Date: 5/17/13 **Customer:** Reference: Start Run Process Plan: \_\_\_\_ Date: **Approvals:** Tooling: Date: Stop QC: \_\_\_\_\_ Date: \_\_\_\_ SPC (Y/N): Date: Sequence ID/ **Operation** Set Up/ **Tool ID** Tool # Plan Accept Reject Reject Insp. Stamp Work Center ID Description **Run Hours** Code **Qty Qty** Number 120 QC8- Inspect parts - second check 0.00 13-7.9 \*120\* QС 0.00 Memo Quality Control 130 Chemical Conversion Coat per QSI005 4.1 0.00 6 7813-7-9 \*130\* HandFinish 0.00 Memo Hand Finishing 140 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00 6XXM/ 13/07/09 \*140\* Powdercoat Memo **Powder Coating** START TIME: OVEN TEMPERATURE FINISH TIME:

m125620

ale Sel - Aussalia

											DQA:	Date:	
NCR:	Yes /	No				WORK ORDER NON-O	COI	NFORM	MANCE / UPDATE		·		
				<del></del>							QA Closed:	Date:	
Work Orde	er:					DISPOSITION			AGAI	NST DE	PARTMENT	/PROCESS	
Part NCR 1	— No					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Crosst  Machining Small  noforming Finis  Large Fab Compo	Fab hing	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator											:		
Material													
Setup													
Other											•		
Process													
Supplier													
Training													
Unapproved							<u> </u>						
				,		F	AUI	LT CATE	GORY				
Landi	ng Ge	ar				General		_		_	_		_
	В	ending				Bend		Grain			Ovalized		Pressure/Forced
		entre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		racks				Broken/Damaged		Inspect	on Incomplete		Part Incorred	ct	Weld
		rushed/	Crimped			Burrs		Instruct	ions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
		uffs				Contamination		Mainte	enance		Part Moved	_	_
	Пн	eat Trea	ıt			Countersink		Mislabe	eled		Positioned V	Vrong	

Misread

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord April-30-13 2:		1018		*101	l018*				Page 3				
Item ID: Revision ID: Item Name:	D3884-2 Saddle, Inboa			Accept	*N900		100	)*	Setup	Start Stop	*NS	51* 52*	
Start Date: Required Date Reference:	5/13/13 : 5/17/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item I Customer:								
Approvals:		an:	Date:	0		ate:			Run	Start Stop	*NF	R1* R2*	
Sequence ID/ Work Center I 150 *150* QC Quality Control	D	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty			Insp. Stamp	<b>D</b>
*160 *160* Packaging Packaging	·	Identify as per dwg & Sto  Memo	S+43/	0.00					4	] 3/17	//0	6	)
170 *170* QC Quality Control		QC21- Final Inspection -	Work Order Release	0.00					13	3/1/	114	1	
									d	(B-l	7-10		,

NCR:	V	•	A1 -
M R.	Yes	•	No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: Date:

: 				DISPOSITION						
	•			. "			AGAINST DE	PARTMENT	/PROCESS	
				Rework Scrap		Skid-tube Machining	Crosstube Small Fab	-{	Water Jet d. Eng. Coor.	Engineering Quality
)			· ·	Use-as-is Work Order Update	∃   <sup>™</sup>	ermoforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other
			Descr	iption of work order update	Initia	A	ction	Sign &		
Date	Step	Qty		or Non-conformance	Chief E	ng Des	cription	Date	Verification	QC Inspector
							ŕ	The state of the s		
	<u> </u>				FAULT C	TECORY				1.
Gear		•			PAULICA	TEGORY .	·			
Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples ir Torque W	Crimped  ot  n Strip in n Bend Vaves in E equence	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	Hard Insp Inst Ma Mis Offs Out	lware ection Incomplete uctions Incomplete ntenance abeled ead et of Calibration of Sequence	/Unclear	Part Incorred Part Lost/Mi Part Moved Positioned V	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Date  Gear  Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in Torque W Turning S	Date Step  Gear Bending Centre Not Concer Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Ripples in Bend Torque Waves in E	Date Step Qty  Gear Bending Centre Not Concentric to C Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend	Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion- Turning Sequence	Date Step Qty Description of work order update or Non-conformance  Gear General  Bending Bend BOM/Route  Centre Not Concentric to O/S Broken/Damaged  Cracks Broken/Damaged  Crushed/Crimped Burrs  Cuffs Contamination  Cuffs Contamination  Cuffs Countersink  Inspection Strip in Tube Ripples in Bend Drill Holes  Torque Waves in Extrusion Turning Sequence Finish	Date Step Qty or Non-conformance Chief E  FAULT CA  Gear General  Bending Bend Grai  Centre Not Concentric to O/S BOM/Route Hard  Cracks Broken/Damaged Inspr  Crushed/Crimped Burrs Instr  Cutfs Contamination Mai  Heat Treat Countersink Misse  Inspection Strip in Tube Cut Too Short Misse  Ripples in Bend Drawing Out  Torque Waves in Extrusion Drawing Out  Turning Sequence Finish Out  One Non-conformance Initial Chief E  FAULT CA  General  Bend Grai  Grai  Grai  Contamination Hard  Countersink Misse  Cou	Date Step Qty Description of work order update or Non-conformance Chief Eng Description of work order update or Non-conformance Chief Eng Description of Non-conformance Chief Eng Description of Non-conformance Chief Eng Description Chief Eng Chief En	Date Step Qty Description of work order update or Non-conformance Chief Eng Description  FAULT CATEGORY  Gear General  Bending Centre Not Concentric to O/S BOM/Route Hardware Inspection Incomplete Inspection Strip in Tube Countersink Maintenance Maintenance Inspection Strip in Tube Cut Too Short Misread Inspection Strip in Tube Ripples in Bend Drill Holes Offset Offset Offset Out of Calibration Turning Sequence Finish Out of Sequence	Date Step Qty Description of work order update or Non-conformance Chief Eng Description Date  FAULT CATEGORY  Gear General  Bending Centre Not Concentric to O/S BOM/Route Hardware Over/Under Cracks Broken/Damaged Inspection Incomplete Part Incorrect Crushed/Crimped Burrs Instructions Incomplete Part Incorrect Crushed/Crimped Contre Not Concentric to O/S Contemination Maintenance Part Moved Inspection Strip in Tube Cout Too Short Misread Positioned V Power Loss/Ripples in Bend Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence	Date Step Qty Description of work order update or Non-conformance Chief Eng Description Date Verification  FAULT CATEGORY  Gear General Bending Centre Not Concentric to O/S BOM/Route Hardware Gracks Broken/Damaged Inspection Incomplete Part Incorrect Part Incorrect Part Moved Hardware Countersink Maintenance Part Moved Hardware Positioned Wrong Inspection Strip in Tube Ripples in Bend Drill Holes Original Ripples in Bend Torque Waves in Extrusion Drawing Out of Sequence

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

## Picklist Print

April-30-13 2:38:23 PM

Work Order ID:

101018

Parent Item:

D3884-2

Parent Item Name:

Saddle, Inboard RH

**Start Date:** 5/13/13

Required Date: 5/17/13

Page 1

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP RevA: New issue DD verified by:EC

Comments.	11 1 1007111 11011 155	ac BB reimica by											
Çomponent Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-017		Manufactured	No				Each	11.0000		6			
Saddle Billet													
				<b>Location</b>		Loc Oty	<u>Lo</u>	c Code					
	•			MAT040		[]							
				044/	1.4	1.1							

B102959X6

and 13/07/06

										DQA:	Date:	
NCR: Y	es / N	0			WORK ORDER NON-	CONF	ORN	MANCE / UP	DATE			
										QA Closed:	Date:	
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
			···········		Rework	]		Skid-tube	Crosstube		Water Jet	Engineering
Part No	o				Scrap	<b>⅃</b>		Machining	Small Fab	3	d. Eng. Coor.	Quality
					Use-as-is	_	Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR No	o				Work Order Update			Large Fab	Composite		Supplier	
	`									-		
Root					Description of work order update	lni	tial	Act	tion	Sign &		
Cause	Dat	e	Step	Qty	or Non-conformance	Chie	f Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data			,									
Equip/Tooling		- 1							•	:		
Operator		1			·							
Material		ŀ										
Setup		_	. ~	٠ پ	. >= 1	~  ·						
Other		1								<b>.</b>		
Process									•			
Supplier												
Training	_											
Unapproved				<u> </u>	<u> </u>			_				
						FAULT	CATE	GORY	······································			
Landin	ig Gear				General							

Bend Grain Ovalized Pressure/Forced Bending BOM/Route Centre Not Concentric to O/S Hardware Over/Under tolerance Temperature/Cure Broken/Damaged Part Incorrect Weld Inspection Incomplete Cracks Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs > Contamination Maintenance Part Moved Countersink Positioned Wrong Heat Treat Mislabeled Other Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge **Drill Holes** Offset Ripples in Bend Torque Waves in Extrusion Drawing Out of Calibration Finish Out of Sequence Turning Sequence

Outside Dimensions

Wave/Twist in Tube

Folio

DART AEROSPACE LTD	Work Order:	101018
Description: Saddle, Inboard, RH .	Part Number:	D3884-2
Inspection Dwg: D3884 Rev. B		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Re		· · · · · · · · · · · · · · · · · · ·			
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	Ву	Date
Α	2.870	2.880		2.875	2.875	2.875	2.875	1	
В	1.433	1.443		1.438	1.438	1.438	1.438		
С	0.638	0.658		1648	1648	.648	1.48		
D	3.895	3.905		3.90h	3.966	3.400	3.900		
E	0.257	0.262		.259	.259	.259	.259		
F	0.605	0.625		.615	.615	.615	.4.15		
G	1.120	1.130		1.125	1.125	1.125	1.125		
Н	2.245	2.255		2.250	2,250	2,250	2.250		***************************************
ı	2.000	2.020		2003	2,003	2,004	2.004		
J.	0.140	0.175		1.152	.157	,157	151		
K	1.265	1.285		1.269	1.2685	1.2687	1,2689		
L	0.115	0.135		1,127	.127	127	1127		
M	0.240	0.260		.251	251	251	.251		
N	0.110	0.140		.140	.140	.140	.140		
0	0.240	0.260		248	.249	248	249		
Р	2.826	2.886		2.866	2.866	2866	2.866		-;. * ·
Q	0.178	0.198		.188	.188	.188	.188		9
R	0.140	0.165		157	.157	.157	.157		
S	0.720	0.780		765	765	.765	.765		
Т	1.220	1.280		1.260	1.260	1,26h	1,240		
U	1.245	1.255		1.250	1.250	1,250	1.250		
V	5.990	6.010		6.001	6.DD1	6.001	4.001		
W	2.495	2.505		2,500	2.500	2,500	2,500		
X	0.490	0.510		.50/	501	·500	.50/		
Υ	0.020	0.040		.030	.030	.030	-03b		
Z	0.313	0.318		. 3/5	.315	.315	.3/5		
AA	0.760	0.765		.760	.740	,740	,76h		
AB	0.215	0.220		.219	.219	.219	. 219		
AC	0.316	0.321		3/7	317	3/7	3/7		*
AD	1.745	1.755		1.750	1.750	1.750	1.750		
AE	0.990	1.010		1.000	1.000	1.000	1.000		.5
AF					~			<u>-</u>	- 46
	Acc	ept/Rejec	;t				1.5	· · · · · · · · · · · · · · · · · · ·	

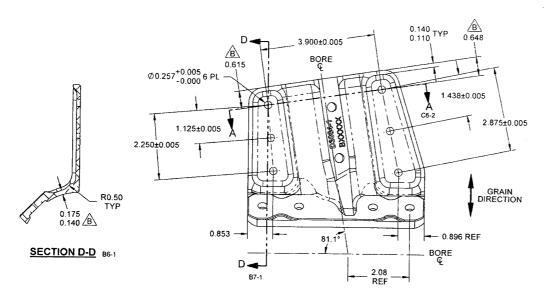
r						6 h )		
Me	asured by:	CMZ.		Audited by	ş)*-	9-80		
	Date:	13/07/07	7	Date:	13	-7.9		
		·						
Rev	Date	Change				Revise	ффу	Approved
Α	09.10.22	New Issue				KJ 🕇	£I_	

DART AEROSPACE LTD	Work Order:	81010
	<b>N</b> .	
Description: Saddle, Inboard, RH	Part Number:	D3884-2
Inspection Dwg: D3884 Rev. B		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Re	corded Actu	ıal Dimensi	ions		
Dim	Min	Max	Go/No Go Gauge	15	26	3	4	Ву	Date
Α	2.870	2.880		2.875	2.875				
В	1.433	1.443		1.438	1.438				
С	0.638	0.658		.648	.648				
D	3.895	3.905		3.900	3.900				
E	0.257	0.262		.259	.259				
F	0.605	0.625		.615	.615				
G	1.120	1.130		1.125	1.125				
Н	2.245	2.255		2.250	2,256				
]" :	2.000	2.020		2.004	2.004		7.		
J	0.140	0.175		.157	.157				
. K	1.265	1.285		1.2693	1-268		del		
L	0.115	0.135		.127	127		ds.		
M	0.240	0.260	,	, 251	, 251				• ;•
N	0.110	0.140		.140	.140				
0	0.240	0.260		249	250				
Р	2.826	2.886	,	2.866	2.866				,
Q	0.178	0.198		. 188	./88	1.4			্
R	0.140	0.165		.157	.158				
S	0.720	0.780		.765	.745				
Т	1.220	1.280		1.260	1.260				
U	1.245	1.255		1.250	1.250				
<b>V</b>	5.990	6.010		6.001	6.001				
W	2.495	2.505		2.500	2.500	<u> </u>			
Χ.	0.490	0.510		.500	,500				
Υ	0.020	0.040		. b3b	· 03t				
Z	0.313	0.318		. 315	. 3/5	-			
AA	0.760	0.765		.760	760				
AB	0.215	0.220		.219	.219				
AC	0.316	0.321		, 3/7	, 3/7	,	·		
AD	1.745	1.755		1.750	1.750				
,AE	0.990	1.010		1.000	1.001				
AF								1 1	7
	Acc	ept/Rejec	ct						

Rev	Date	Change	· · · · · · · · · · · · · · · · · · ·	Revised by	Approved
Α	09.10.22	New Issue		KJ #I	



-- 0.015 R2.000<sup>+0.020</sup> R0.50 -0.050 x 45° CHAMFER TYP R0.50 C3-2 **DETAIL C** 

D3884-1 SADDLE, INBOARD LH (SHOWN) D3884-2 SADDLE, INBOARD RH (OPPOSITE)

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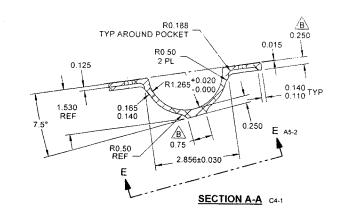
NOTES:
1) MATERIAL: 7075-T7351 ALUMINUM PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS-QQ-A-250/12 (REF DART SPEC. D6101-017)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.05 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX. DEPTH OF 0.010 WITH A MIN. TOOL RAD OF R0.010

7) WEIGHT: 0.71 lbs

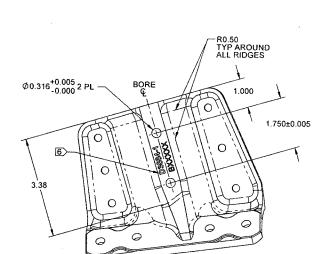
D6101-017 WAS D6102-017. ZN A6-1; ADD NOTE. ZN C4-2; ADD R0.031. ZN C2-2; INCREASED TOLERANCE 0.175 WAS 0.155. ZN B7-1; ADD 0.615. ZN C6-1. ADD 0.648. ZN C6-1; ADD 0.250. ZN D6-2; ADD 0.060. ZN C2-2; 0.75 WAS 0.65. ZN D7-2 09.06.30 Α NEW ISSUE RF 09.03.30 REV. DESCRIPTION BY DATE

DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	RF	PORT HADLOCK, WA		
CHECKED	PH 1	DRAWING NO.	REV. B	
MFG. APPR.	4	D3884	SHEET 1 OF 2	
APPROVED	Model	TITLE	SCALE	
DE APPR.		INBOARD SADDLE	NTS	
DATE 09.06.30		COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND COMPOSITION AND SUPPLIES ON THE STREET CONTROL THAT IT IS MOST TO BE USED TO AN AIR PROPERTY OF COMPANYED TO ANY OTHER PRESENTANCE.		

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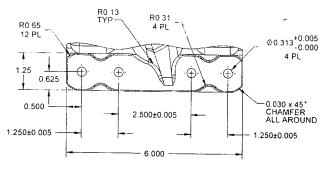


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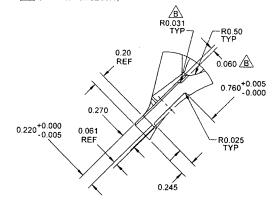
VIEW E-E C6-2

5



B (ROTATED FOR CLARITY)

3



DETAIL C SCALE 2X B3-1

2



DESIGN	RF	DART AEROSPACE (	ISA INC	
DRAWN RF		PORT HADLOCK, WA		
CHECKED	P# 1	DRAWING NO.	REV. B	
MFG. APPR.	Poll	D3884	SHEET 2 OF 2	
APPROVED	1M	TITLE	SCALE	
DE APPR.	#	INBOARD SADDLE	NTS	
DATE 09.0	06.30	COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT REPORT AND OF DEPENDENCY AND IS SEPTILED OF THE CONTROL THAT IT IS NOT TO BE USED FOR ANY PURPOSE OF CORPOR OF COMPUNENTED TO ANY OTHER PRESENTATION.		